

# Salzburg II – EUA-CDE draft for comment

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Europe is emerging as a global leader in reforming doctoral education. The European reforms of doctoral education have been one of the most dynamic parts of both the European Higher Education Area and the European Research Area. They are vital for the sustainable development of Europe and essential for the global research community.

The doctorate has increasingly achieved recognition as a key part of the knowledge society by developing the creativity and flexibility of the research mindset for a number of different functions and careers.

The basis of the reform of doctoral education has been the Salzburg Principles from 2005. The implementation of the principles has been the work of Europe's universities, which have attained a great expertise and experience through this process.

After five years of reform, the Salzburg Principles have proven their validity as a foundation for doctoral education. The following recommendations are an affirmation and enrichment of the Salzburg Principles, a message from Europe's universities based on their experiences.

The recommendations are the outcome of intensive consultations with the members of the EUA Council for Doctoral Education (EUA-CDE), the largest and most comprehensive organisation concerning doctoral education in Europe. The outcomes of the consultations were discussed by the more than 220 participants at the Annual Meeting of the EUA-CDE at the Free University of Berlin in June 2010, representing 165 institutions from 36 countries.

The recommendations build on the original Salzburg Principles. They do not replace them, but affirm their validity and intend to give them additional, concrete content.

The recommendations are to be read as three different categories: The first category cements the basis of the doctorate as based on research and thereby different from the first and the second cycle. The second and largest category consists of recommendations for the concrete implementation of reforms, aimed at universities as well as those providing the legal framework for doctoral education. The third category is aimed mostly at non-university stakeholders such as political decision makers and funding organisations, they concern issues such as the institutional autonomy and sustainable funding of doctoral schools.

## **Research as the basis and the difference**

The first Salzburg Principle firmly defines the doctorate as based on research. The goal of doctoral education is to cultivate the research mindset, to nurture flexibility of thought, creativity and intellectual autonomy through a concrete research project. It is the practice of research that makes this mindset. It cannot be taught.

Doctoral education takes place in a research environment with doctoral candidates as fellow researchers; this demands that institutions base their strategies for doctoral education on their research capacity, their critical mass and their ability to create inclusive environments that will make doctoral candidates active participants in the on-going research.

It is hence essential that the development of doctoral education cannot follow the same path and use the same tools as the first and second cycle.

### The meaning of structure

Structuring doctoral education is to create a supportive environment. Setting up structures means taking institutional responsibility for training through research, as defined in the second Salzburg Principle. Doctoral education is highly individual, and structures must give support to individual development, not producing uniformity or predictability. The goals of structuring doctoral education must be to assure diverse and inclusive research environments of a high quality as the basis of doctoral education. This includes critical mass, transparent admission procedures and high quality of supervision. Structuring doctoral education also means making available institutional support for career development and mobility. Taught courses and curriculum development are to be seen as support of the individual professional development of doctoral candidates; they are not central to the meaning of structure.

When establishing structures, the importance of diversity as stressed in the third Salzburg Principle is crucial. Many different structures and diverse strategies will enrich doctoral education in Europe.

### Elements for structuring doctoral education

#### Critical mass

Doctoral education is dependent on the research environment. Institutions must develop a **critical mass of research** in order to offer high quality doctoral education. Critical mass does not necessarily mean a large number of researchers, but rather the quality of the research. As underlined in the sixth Salzburg Principle, it is important that different institutions employ diverse strategies to assure critical mass, engaging in larger research networks and developing their areas of strength through focused research strategies.

#### Recruitment and admission

Structured programmes should **develop recruitment strategies that correspond to their particular mission and profile**. Recruitment strategies should be connected to explicit outcomes, identifying clear profiles of the candidates sought after. Such profiles should build on the parity of esteem of a range of different qualities. In this manner, recruitment policies could take into account criteria such as international recruitment, gender equality, social background or different age groups. Recruitment should be based on **research potential of the candidates rather than past performance**.

**Admission to a doctoral programme is an institutional responsibility**, which must include a strong involvement of research staff. Admissions policies must be **transparent and accountable** and should reflect the research, supervisory and financial capacity of the institution. Transparency and accountability will be strengthened by having a **single, identifiable place to apply** at least at programme level. Admissions should be based on a **well-defined, public set of criteria**. Institutions

should **accept risk in admitting doctoral candidates** and allow them to demonstrate their potential through a monitoring system.

## Supervision

As stressed in the fifth Salzburg Principle, supervision plays a crucial role. **Supervision must be a collective effort** with clearly defined and written responsibilities of the supervisor, doctoral candidate, doctoral school, research group and the institution, leaving room for the individual development of the doctoral candidate. **Providing professional development to supervisors is an institutional responsibility**, whether organised through formal training or informal sharing of experiences among staff. Developing a common **supervision culture** shared by supervisors and doctoral candidates must be a priority for doctoral schools. **Supervisors must be active researchers.**

## Credits

Applying **credit systems in doctoral education is not a necessary precondition for establishing doctoral programmes.** Credits can be useful for the taught components of doctoral education, especially in cross-institutional (joint) doctoral programmes. Credits do not make sense in measuring the research component nor its associated dissemination outputs. Applied wrongly, rigid credit requirements can be detrimental to the development of independent research professionals. High quality doctoral education needs a stimulating research environment driven by research enthusiasm, curiosity and creativity, not motivated by the collection of credits.

## Quality

It is necessary to develop **specific systems for quality assurance in doctoral education** based on the diverse institutional missions and, crucially, **linked to the institutional research strategy.** For this reason, there is a strong link between assessment of research of the institution and the assessment of the research environments that form the basis of doctoral education. Assessment of the **academic quality of doctoral education should be based on peer review** and be sensitive to disciplinary differences.

In order to be accountable for the quality of doctoral programmes, institutions should **develop indicators based on institutional priorities** such as individual progression, net research time, career tracking and dissemination of research results for early stage researchers, taking into consideration the professional development of the researcher as well as the progress of the research project.

## Internationalisation

**Internationalisation strategies should be a tool to increasing the quality in doctoral education and to develop institutional research capacity.** Internationalisation in doctoral education is understood and interpreted in different ways, ranking from **internationalisation at home** (using the international elements within the home institution such as international staff, events and guest researchers), **collaborative doctoral programmes** (with individual mobility – such as co-tutelle) to **international joint doctoral programmes** (joint, integrated curricula, joint committees and juries, and the joint degree). As stressed in the ninth Salzburg Principle, doctoral education should include the possibility for mobility experiences. The choice of a specific model of internationalisation must be coherent with the research strategy of the institution and the individual needs of the doctoral candidate.

**The mobility of doctoral candidates must be coherent with the research project and should not be determined by pre-defined percentages.**

## Outcomes

The Dublin Descriptors remain a valuable guide for the outcomes of doctoral education. **The main outcome of doctoral education is the early stage researcher** and his/her contribution to the society through knowledge, competences and skills he/she learnt by undertaking research. The outcome of his/her research is **the thesis that can be in a form of a publishable monograph, several peer reviewed papers or a consistent creative artistic work.**

## Career development

**Career support for doctoral candidates must take into account individual goals and motivations and acknowledge the wide range of careers for doctorate holders.**

While the doctoral candidate is responsible for his/her career choices, **it is the institutional responsibility to provide support structures for professional development.** Professional development of doctoral candidates includes awareness about skills attained through doing research as well as the wide range of career choices for doctorate holders.

## Clearing the Obstacles

The growth of doctoral schools in Europe has been extremely impressive. Much has been done to implement reforms and to continuously develop doctoral education. Universities have proved that they have the will and the expertise to carry out a thorough modernisation of doctoral education, but they still encounter obstacles to their ambitions.

## Funding

The tenth and final Salzburg Principle underlines the importance of sustainable funding. Universities as well as doctoral candidates are still underfunded. High quality doctoral education requires adequate, sustainable and doctorate-specific funding opportunities.

Making a structured programme a success requires more than funding for **grants or salaries** for doctoral candidates or research equipment. **Strategic leadership, supporting structures and career development** all need resources. The same goes for the management of the **physical space** where the programmes are located. Experiments with new types of research environments, open offices, retreats or similar have proven effective in creating inclusive research communities. Governments and funding organisations should be aware of these needs in their initiatives for doctoral education.

Giving doctoral schools and programmes the **sustainable financial means to recruit candidates** would improve the competitiveness of European doctoral education. Letting high quality doctoral schools administer resources for grants and salaries will strengthen the capacity of doctoral schools to engage in flexible recruitment strategies to attract the best candidates for their profile. Funding schemes that aims at increasing the number of doctoral candidates should be **taking into account the quality and capacity of the programmes.**

## Autonomy

**Institutions need autonomy to be able to establish diverse structures with different research strategies and strengths.** The use of specific tools such as credit systems or taught courses (including transferable skills) must be decided autonomously within the institution in accordance with the profile of the doctoral programme.

## Legal framework

The national and European legal frameworks must give institutions the possibility to engage in innovative doctoral programmes and take the necessary institutional responsibilities.

Institutions must be able to independently develop their systems for quality assurance and enhancement within their national frameworks. They must have the **freedom to develop their own indicators for quality** that corresponds with the standards of the individual disciplines as well as with the overall institutional strategy.

**National legislation governing joint or dual degrees should be reviewed to facilitate international collaborations.** The aim should be to create a greater degree of coherence and transparency on the requirements for setting up programmes with joint or dual degrees.

## Intersectoral mobility

All stakeholders should engage in **measures to facilitate co-operation between providers of doctoral education and the sectors that benefit from the skills of doctorate holders.** Awareness about the qualities of doctoral education and increased trust between universities and other sectors are essential for society as a whole to profit fully from doctoral education